

FY 2014 RARE and RM Proposals by ORD Lab/Center and Division

National Exposure Research Laboratory

Atmospheric Modeling and Analysis Division

RM Proposal

Region 10 - Improvements to AERMOD/PRIME to address downwash from offshore platform emissions sources

Ecological Exposure Research Division

RARE Proposals

Region 3 - Building regional capacity to assess the impact of federal, regional, state, and local decisions on public health and to support the reduction of disproportionate impacts on overburdened communities

Region 3 - Next generation bio-monitoring: Environmental DNA (eDNA) for the detection of sensitive, threatened, and endangered species (also NRMRL/WSWRD)

Ecosystem Research Division

RARE Proposals

Region 6 - An update to rates, constants, and kinetics formulations in surface water quality modeling (second edition) (multi-Region: R6 lead and R10)

Region 10 - Mercury cycling, biomagnification, and risk across western North America: A landscape scale synthesis to link long-term datasets (multi-Region: R10 lead, R8, and R9)

Environmental Sciences Division

RARE Proposal

Region 9 - Development of leading indicators of ecosystem function for BMP effectiveness, water quality standards, biological criteria, and TMDLs

Human Exposure and Atmospheric Sciences Division

RARE Proposals

Region 2 - Citizen science toolbox (also NRMRL/APPCD)

Region 6 - Method comparison research study of passive and continuous gaseous oxidized mercury (GOM) monitors

Region 9 - Using community-based air monitoring to understand bystander exposure to pesticide drift

RM Proposals

Region 4 - Field evaluation of lower cost, continuous measurement of air pollutants (also NRMRL/APPCD)

Region 5 - Developing surface wipe sampling methods for evaluating indoor contamination from pesticide misuse (also NHSRC/DCMD and TCAD)

Region 10 - Comparison of soil sampling methods for asbestos at the Sumas Mountain Asbestos site - Working towards a toolbox for quicker assessment

Microbiological and Chemical Exposure Assessment Research Division

RARE Proposals

Region 1 - Applied research into integrated resource management for water, wastewater, solid waste, and energy in New England (also NHEERL/AED)

Region 6 - Comprehensive microbial analyses of rainwater collection systems

Region 6 - Human health risks associated with infrequent chlorination of drinking water systems found on tribal land

Region 6 - Understanding risks associated with the use of reclaimed water for potable use

National Health and Environmental Effects Research Laboratory

Atlantic Ecology Division

RARE Proposals

Region 1 - Applied research into integrated resource management for water, wastewater, solid waste, and energy in New England (also NERL/MCEARD)

Region 1 - Impacts of coastal acidification on the ecological health of shellfish in Southern New England: Research to support climate change adaptation efforts

Region 1 - Enhancements to the watershed management optimization support tool

Region 3 - Bulkhead bio-enhancement to improve estuarine habitat and water quality of poorly flushed residential canals

Region 3 - Delving deeper in the Delaware Estuary: The establishment of a baseline for the estuary's nutrient concentrations and its buffering capabilities, and the creation of the first Delaware Estuary biological index for the tidal portion of the estuary (multi-Region: R3 lead and R2)

RM Proposal

Region 1 - Developing a metric for estimating the impact of changes in directly connected impervious area on flooding (also NRMRL/WSWRD)

Environmental Public Health Division

RARE Proposal

Region 6 - Investigating asthma prevalence along the US/Mexico border to better target interventions

Western Ecology Division

RARE Proposals

Region 7 - Prairie chicken viability modeling for the Flint Hills tall grass prairie

Region 9 - Comparing mineralized N in soil and crop yields from applications of digested vs. undigested dairy manure effluent

National Risk Management Research Laboratory

Immediate Office

RARE Proposal

Region 2 - Sustainability system enterprise model (also ORD/IO and NRMRL/STD)

Air Pollution Prevention and Control Division

RARE Proposals

Region 2 - Citizen science toolbox (also NERL/HEASD)

Region 8 - Understanding emissions from control-related equipment used in oil and gas production operations to support EPA's air quality modeling of ozone non-attainment areas

RM Proposal

Region 4 - Field evaluation of lower cost, continuous measurement of air pollutants (also NERL/HEASD)

Groundwater and Ecosystems Restoration Division

RARE Proposals

Region 2 - Assessment of arsenic and other metals concentrations from natural and anthropogenic sources in the soils of Puerto Rico

Region 2 - Investigation of processes controlling attenuation and cleanup of a hexavalent chromium plume in fractured sedimentary bedrock

Region 6 - Evaluation of wetland assimilation projects in the State of Louisiana

Region 8 - Predicting potential downgradient groundwater quality changes from in-situ recovery of uranium at the Dewey-Burdock site using core data and reactive transport modeling

RM Proposal

Region 8 - Method to determine maximum post-restoration contamination concentrations in ISR well fields to prevent breach of UIC aquifer exemption boundary and protect downgradient USDWs at the Dewey-Burdock site using core data and reactive transport modeling

Land Remediation and Pollution Control Division

RARE Proposals

Region 2 - Evaluating impacts of wood waste management on achieving net zero focusing on site cleanup waste

Region 8 - Cost effective methodologies for deploying renewable energy systems (solar) on landfills and other waste repositories

Region 9 - Sustainable approaches for materials management in remote, economically challenged areas

Sustainable Technologies Division

RARE Proposals

Region 2 - Sustainability system enterprise model (also NRMRL/IO and ORD/IO)

Region 3 - Application and refinement of green engineering materials management model for promoting re-use of high-value solvents

Region 6 - USEPA planning for green infrastructure (GI) in New Orleans, LA- An investigation of local soil hydrologic attributes to inform GI selection and deployment for separate storm sewer system management

Region 7 - Phase 2 - Green infrastructure monitoring - Investigation of soils for green infrastructure implementation in Omaha, NE through the development of a monitoring strategy

Water Supply and Water Resources Division

RARE Proposals

Region 2 - Bioinfiltration capacity demonstration 'right sizing project'

Region 2 - Quantifying and modifying the long-term performance of urban green roofs for stormwater control

Region 3 - Next generation bio-monitoring: Environmental DNA (eDNA) for the detection of sensitive, threatened, and endangered species (also NERL/EERD)

RM Proposals

Region 1 - Developing a metric for estimating the impact of changes in directly connected impervious area on flooding (also NHEERL/AED)

Region 2 - A next generation sequencing-based method for monitoring fecal pollution sources in tropical waters

Region 5 - Methods for assessing the water quality degradation through water treatment plants during algal blooms

Region 10 - Fecal source identification real-time quantitative PCR technology transfer to regional laboratories and field demonstration

National Homeland Security Research Center

Decontamination and Consequence Management Division and Threat Consequence Assessment Division

RM Proposal

Region 5 - Developing surface wipe sampling methods for evaluating indoor contamination from pesticide misuse (also NERL/HEASD)

Office of the Assistant Administrator

Immediate Office, Office of Sustainable Development

RARE Proposal

Region 2 - Sustainability system enterprise model (also NRMRL/IO and NRMRL/STD)

FY 2014 RARE Proposals by ORD Research Program

Air, Climate and Energy

RARE Proposals

Region 2 - Citizen science toolbox (also SHC)

Region 6 - Investigating asthma prevalence along the US/Mexico border to better target interventions (also SHC)

Region 6 - Method comparison research study of passive and continuous gaseous oxidized mercury (GOM) monitors

Region 8 - Cost effective methodologies for deploying renewable energy systems (solar) on landfills and other waste repositories (also SHC)

Region 8 - Understanding emissions from control-related equipment used in oil and gas production operations to support EPA's air quality modeling of ozone non-attainment areas

Region 9 - Using community-based air monitoring to understand bystander exposure to pesticide drift (also SHC)

RM Proposals

Region 4 - Field evaluation of lower cost, continuous measurement of air pollutants

Region 10 - Improvements to AERMOD/PRIME to address downwash from offshore platform emissions sources

Chemical Safety for Sustainability

RARE Proposal

Region 2 - Assessment of arsenic and other metals concentrations from natural and anthropogenic sources in the soils of Puerto Rico (also SHC)

Region 3 - Application and refinement of green engineering materials management model for promoting re-use of high-value solvents (also SHC)

Region 10 - Mercury cycling, biomagnification, and risk across western North America: A landscape scale synthesis to link long-term datasets (multi-Region: R10 lead, R8, and R9) (also SHC)

RM Proposal

Region 10 - Comparison of soil sampling methods for asbestos at the Sumas Mountain Asbestos site - Working towards a toolbox for quicker assessment (also SHC)

Homeland Security

RM Proposal

Region 5 - Developing surface wipe sampling methods for evaluating indoor contamination from pesticide misuse

Sustainable and Healthy Communities

RARE Proposals

Region 1 - Applied research into integrated resource management for water, wastewater, solid waste, and energy in New England (also SSWR)

Region 1 - Impacts of coastal acidification on the ecological health of shellfish in Southern New England: Research to support climate change adaptation efforts (also SSWR)

Region 2 - Assessment of arsenic and other metals concentrations from natural and anthropogenic sources in the soils of Puerto Rico (also CSS)

Region 2 - Citizen science toolbox (also ACE)

Region 2 - Evaluating impacts of wood waste management on achieving net zero focusing on site cleanup waste

Region 2 - Investigation of processes controlling attenuation and cleanup of a hexavalent chromium plume in fractured sedimentary bedrock (also SSWR)

Region 2 - Sustainability system enterprise model

Region 3 - Application and refinement of green engineering materials management model for promoting re-use of high-value solvents (also CSS)

Region 3 - Building regional capacity to assess the impact of federal, regional, state, and local decisions on public health and to support the reduction of disproportionate impacts on overburdened communities

Region 3 - Bulkhead bio-enhancement to improve estuarine habitat and water quality of poorly flushed residential canals (also SSWR)

Region 3 - Delving deeper in the Delaware Estuary: The establishment of a baseline for the estuary's nutrient concentrations and its buffering capabilities, and the creation of the first Delaware Estuary biological index for the tidal portion of the estuary (multi-Region: R3 lead and R2) (also SSWR)

Region 6 - Investigating asthma prevalence along the US/Mexico border to better target interventions (also ACE)

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Region 7 - Prairie chicken viability modeling for the Flint Hills tall grass prairie

Region 8 - Cost effective methodologies for deploying renewable energy systems (solar) on landfills and other waste repositories (also ACE)

Region 8 - Predicting potential downgradient groundwater quality changes from in-situ recovery of uranium at the Dewey-Burdock site using core data and reactive transport modeling (also SSWR)

Region 9 - Comparing mineralized N in soil and crop yields from applications of digested vs. undigested dairy manure effluent

Region 9 - Development of leading indicators of ecosystem function for BMP effectiveness, water quality standards, biological criteria, and TMDLs (also SSWR)

Region 9 - Sustainable approaches for materials management in remote, economically challenged areas

Region 9 - Using community-based air monitoring to understand bystander exposure to pesticide drift (also ACE)

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RM Proposals

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Safe and Sustainable Water Resources

RARE Proposals

Region 1 - Applied research into integrated resource management for water, wastewater, solid waste, and energy in New England (also SHC)

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Region 8 - Method to determine maximum post-restoration contamination concentrations in ISR well fields to prevent breach of UIC aquifer exemption boundary and protect downgradient USDWs at the Dewey-Burdock site using core data and reactive transport modeling (also SHC)

Region 10 - Fecal source identification real-time quantitative PCR technology transfer to regional laboratories and field demonstration

**Instructions for Accessing the Environmental Science Connector
for Review of FY 2014 RARE and RM Proposals**

Lab/Center Management	National Program Directors
<ul style="list-style-type: none"> • Log in to Science Connector • Go to the list of “My Projects” and choose “ORD RARE and RM Review FY14 ” • On the list of “Folders,” click on either “FY14 RARE Review” or “FY14 RM Review” (click on the + icon to open the subfolders) • On the list of subfolders, click on “Labs/Centers” (click on the + icon to open the subfolders) • To view the review questions, click on “L/C Review Questions” • To view the abstracts <ul style="list-style-type: none"> - Click “RARE Abstracts” or “RM Abstracts” - Click on the selected Lab or Center - Click on the selected Division - Click on the selected abstract • To upload your comments <ul style="list-style-type: none"> - Click on L/C Comments - Click on the Region - Click on “Upload Files” under “Actions” 	<ul style="list-style-type: none"> • Log in to Science Connector • Go to the list of “My Projects” and choose “ORD RARE and RM Review FY14” • On the list of “Folders,” click on either “FY14 RARE Review” or “FY14 RM Review” (click on the + icon to open the subfolders) • On the list of subfolders, click on “NPDs” (click on the + icon to open the subfolders) • To view the review questions, click on “NPD Review Questions” • To view the abstracts <ul style="list-style-type: none"> - Click on “RARE Abstracts Organized by Research Program” or “RM Abstracts Organized by Research Program” - Click on the selected Research Program - Click on the selected abstract • To upload your comments <ul style="list-style-type: none"> - Click on NPD Comments - Click on the Region - Click on “Upload Files” under “Actions”

For technical assistance with the Environmental Science Connector, please contact Valerie Blank or Jon Yuen.

Schedule for FY14 RARE and RM Programs

DATE	MILESTONE
May 8, 2013	RARE and RM processes initiated
July 8, 2013	RSLs send RARE and RM proposals to OSP
August 2, 2013	OSP sends proposals, organized by Lab/Center and ORD Research Program, to Lab/Center Directors and NPDs
September 9, 2013	Deadline for posting ORD management comments on the Environmental Science Connector
October 14, 2013	OSP sends consolidated ORD comments on RARE and RM proposals to RSLs
December 13, 2013	RSLs provide final RARE and RM selections to OSP
January 3, 2013	OSP sends final regional selections to Labs/Centers and NPDs
April 30, 2014	ORD Labs/Centers send completed funding packages to OSP

Regional Science Liaisons and OSP Regional Program Staff

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